

A MECHANISM FOR ON-LINE PREDICTION OF FUTURE PERFORMANCE MEASUREMENTS IN A COMPUTER SYSTEM

ABSTRACT OF THE DISCLOSURE

[0029] Disclosed are a method and system for predicting future values of a target metric associated with a task executed on a computer system. The method comprises the steps of, over a given period of time, measuring at least one defined metric, transforming that measurement into a value for a predictor source metric, and using the value for the predictor source metric to obtain a predicted future value for said target metric. The preferred embodiment of this invention provides a flexible performance multi-predictor to solve the problem of providing accurate future behavior predictions for adaptive reconfiguration systems. The multi-predictor makes predictions about future workload characteristic by periodically reading available hardware counters. Also disclosed is a method and system for periodically reconfiguring an adaptive computer system by rescheduling tasks based on future behavior predictions.